

Notice of Allowability	Application No.	Applicant(s)	
	09/993,541	JENSEN ET AL.	
	Examiner KHAI TRAN	Art Unit 2637	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to the application filed 11/14/2001.
2. The allowed claim(s) is/are 1-65.
3. The drawings filed on 14 November 2001 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some*
 - c) None
 of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

REASONS FOR ALLOWANCE

Allowable Subject Matter

1. Claims 1-65 are allowed.
2. The following is an examiner's statement of reasons for allowance: none of the prior art of the record discloses a radio receiver comprising: phase locked loop module operably coupled to produce a digital signal based on the filtered I signal and the filtered Q signal generated from the first and the second comb filters; a recovery module operably coupled to produce a data stream from the digital signal as recited in claims 1, 23, 28, 47, the data recovery module including: DC offset module operably coupled to receive the digital signal and to determine a DC offset using a first criteria during an acquisition mode and to determine the DC offset using second criteria during a tracking mode, wherein the DC offset module substantially remove the DC offset from the digital signal to produce a C adjusted digital signal; and data extraction module operably coupled to sample the Dc adjusted digital signal a sample rate to produce a data stream as recited in claims 8, 33, 52; low pass filter/equalizer module operably coupled to the phase locked loop to equalize and low pass filter the digital signal to produce an equalized and filtered signal as recited in claims 19, 43, 62.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Nakagawa et al (U.S. Pat. 4,754,340) disclose a method of reproducing a chrominance signal from a previous low-range converted chrominance signal using comb filtering and sampling.

-Mishima et al (U.S. Pat. 6,115,432) disclose a high frequency signal receiving apparatus.

-Jun (U.S. Pat. 6,229,560) discloses an apparatus and method for determine co-channel interference.

-Lee et al (U.S. Pat. 6,335,952) disclose a single chip CMOS transmitter/receiver.

-Li et al (U.S. 2002/0160734 A1) disclose a direct conversion receiver.

-Lakkis et al (U.S. Pat. 6,694,131) disclose a method and apparatus for adaptive image rejection.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KHAI TRAN
Primary Examiner
Art Unit 2637

KT
17 February 2005